

IN THE CLAIMS:

1-14 (cancelled)

15. (currently amended) A polyolefin pipe having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a ~~composite resin according to claim 4~~ multimodal polyolefin resin comprising not less than 80 weight % of ethylene and up to 20 weight % of one or more C₃₋₁₀ alpha olefins, said composite resin having a density greater than 0.940 g/cm³; a melt index determined according to ASTM D 1238 under a load of 2.16 kg and a temperature of 190°C greater than 0.01 g/10 minutes, a polydispersity greater than 3.5, and a CDBI of greater than 50 comprising at least:

a) from 5 to 50 weight % of a high molecular weight component having a density greater than 0.940 g/cm³; a weight average molecular weight greater than 250,000; a polydispersity from 1.5 to 3.5; and a short chain branch content from 0.0 to 4.4 short chains per 1000 carbon atoms in the polymer backbone; and

b) from 50 to 95 weight % of a lower molecular weight component having a density from 0.930 to 0.960 g/cm³; a weight average molecular weight greater than 25,000; a polydispersity from 2.0 to 3.5; and a short chain branch content from 0.5 to 6.1 short chains per 1000 carbon atoms in the polymer backbone.

16.(currently amended) ~~[[A]] The polyolefin pipe according to claim 15 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop~~

~~stress of 900 psi prepared from a composite resin according to claim 2 wherein said multimodal polyolefin resin has a melt index determined according to ASTM D 1238 under a load of 2.16 kg and temperature of 190°C from 0.10 to 0.50 g/10 minutes.~~

17. (currently amended) [[A]] The polyolefin pipe according to claim 16 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 3 wherein said multimodal polyolefin resin has a polydispersity greater than 5.

18.(currently amended) [[A]] The polyolefin pipe according to claim 17 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 4 wherein said multimodal polyolefin resin is a bimodal polyolefin resin.

19.(currently amended) [[A]] The polyolefin pipe according to claim 18 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 5 wherein the high molecular weight component of the bimodal polyolefin resin is present in an amount from 15 to 40 weight % based on the total weight of the resin.

20. (currently amended) [[A]] The polyolefin pipe according to claim 19 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 6 wherein the low molecular weight component of the bimodal polyolefin resin is present in an amount from 85 to 60 weight % based on the total weight of the resin.

21.(currently amended) [[A]] The polyolefin pipe according to claim 20 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 7 wherein said bimodal polyolefin resin has a CDBI from 70 to 95.

22.(currently amended) [[A]] The polyolefin pipe according to claim 21 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 8 wherein said bimodal polyolefin resin has a density from 0.940 to 0.955 g/cm³.

23.(currently amended) [[A]] The polyolefin pipe according to claim 22 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 9 wherein said

bimodal polyolefin resin has a melt index determined according to ASTM D 1238 under a load of 2.16 kg and a temperature of 190°C from 0.10 to 0.50 g per 10 minutes.

24.(currently amended) [[A]] The polyolefin pipe according to claim 23 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 10 wherein said bimodal polyolefin resin has a polydispersity greater than 5.

25.(currently amended) [[A]] The polyolefin pipe according to claim 24 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 11 wherein said bimodal polyolefin resin has a CDBI from 75 to 80.

26.(currently amended) [[A]] The polyolefin pipe according to claim 25 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 12 wherein said bimodal polyolefin resin has a density from 0.945 to 0.950 g/cm³.

27.(currently amended) [[A]] The polyolefin pipe according to claim 26 having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle

~~failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 13~~ wherein said bimodal polyolefin resin has a melt index determined according to ASTM D 1238 under a load of 2.16 kg and a temperature of 190°C from 0.10 to 0.40 g/10 minutes.

28.(currently amended) ~~[[A]] The polyolefin pipe having a hydrostatic design basis at 23°C of equal or greater than 1250 psi and a ductile-brittle failure transition of at least 2000 hours when measured at 80°C under a minimum hoop stress of 900 psi prepared from a composite resin according to claim 14~~ wherein said bimodal polyolefin resin has a polydispersity greater than 5.

29-33. (cancelled)